

From: Kevin Rafferty [mailto:raffertk@oit.edu]
Sent: Thursday, November 21, 2002 1:15 PM
To: Hadjy, Pandor
Subject: Section 9006

To Whom it May Concern:

Thank-you for the oportunity to comment on the implementation of Section 9006 of the 2002 Farm Security and Rural Investment Act. I would like to submit the following thoughts:

1.) I would like to encourage you to allow for the inclusion of geothermal direct use (systems that use water in the range of 100 F to 250 F from wells and spings) and ground source heat pump systems among the eligible measures qualifying for support under the Section. Direct use systems are particularly feasible in the Western portion of the country and the application of geothermal fluids to the heating oof greenhouses and aquaculture facilities is a very effective way for those with acceess to such resources to diversify their farm operation. Geothermal resources are widely distributed and in use in such states as OR, WA, ID, NV, AZ, CA, NM, UT and CO.

Ground source heat poump systems are an efficient way to heat and cool buildings. many different types of systems are available to accommodate different site conditions. One of the most cost effective system types is referred to as an "open loop" system. Under this approach waster from a well is used to support the operation of the heat pump (which supplies heating cooling and domestic hot water to the home) and the water, after passing through the heat pump can then be used for stock waterin or irrigation. Ground source heat pump systems are recognized by DOE and EPA as among the most efficient space conditioning systems available.

2.) Loans or loan guarantees are more effective mechanisms that direct grants. Grants - particularly in the ground source heat pump arena have been shown to simply "index up" installation costs since the contractors often factor the grant availability into their bids.

3.) A balanced approach in determining awardees should be used in terms of projects which generate electricity (typically wind and solar voltaics) and those which conserve energy or displace conventional fuel use (ground source heat pumps and direct use geothermal).

Some sort of cost effectiveness criteria should apply - simple payback etc.

Sincerely
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